

Applicant : Thomas G. Woolston  
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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1-19. (Cancelled)
20. (Previously Presented) An electronic game apparatus comprising:  
a display for displaying information indicative of action in an electronic  
game;  
an input device that receives input from a user playing the electronic  
game;  
an output device having a gyrostator with at least one degree of freedom on  
at least one toppling axis; and  
a controller that controls action in the electronic game based at least in part on  
input received from the user and that selectively topples the gyrostator to provide a  
sensation to the user playing the electronic game.
21. (Previously Presented) The apparatus of claim 20 wherein each of  
the display, the input device, the output device, and the controller are physically separate  
components.
22. (Previously Presented) The apparatus of claim 20 wherein the input  
device and the output device are integrated as a common component.
23. (Previously Presented) The apparatus of claim 20 wherein the  
display is physically separate from at least one of the input device, the output device and  
the controller.

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24. (Previously Presented) The apparatus of claim 20 wherein two or more of the display, the input device, the output device, and the controller are integrated into a common housing.

25. (Previously Presented) The apparatus of claim 24 wherein the common housing is configured to be handheld by the user of the electronic game.

26. (Previously Presented) The apparatus of claim 24 wherein the common housing has an appearance that resembles an instrument.

27. (Previously Presented) The apparatus of claim 26 wherein the instrument comprises a weapon.

28. (Previously Presented) The apparatus of claim 27 wherein the weapon comprises a knife, a sword, a gun, a hammer, an axe, or a light saber.

29. (Previously Presented) The apparatus of claim 26 wherein the instrument comprises an object other than a weapon.

30. (Previously Presented) The apparatus of claim 20 wherein the electronic game apparatus comprises an electronic sword game.

31. (Previously Presented) The apparatus of claim 20 wherein the controller is programmable and wherein the apparatus further comprises software executed by the controller for controlling one or more of (i) action in the electronic game, (ii) receiving input from the user, and (iii) manipulating the gyroscopic element, causing the gyrostat to topple selectively on the at least one toppling axis to produce a tactile sensation on the output device.

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32. (Previously Presented) The apparatus of claim 20 further comprising a sensor for determining a position or an attitude, or both, of the input device.

33. (Previously Presented) The apparatus of claim 32 wherein the controller selectively topples the gyrostator to provide a sensation to the user playing the electronic game based at least in part on information determined by the sensor.

34. (Previously Presented) The apparatus of claim 33 wherein the sensor comprises a gyroscopic inertial positioning system.

35. (Previously Presented) The apparatus of claim 33 wherein the sensor comprises one or more infrared transceivers.

36. (Previously Presented) The apparatus of claim 33 further comprising a safety device that prevents toppling of the gyrostator when the user is disengaged.

37. (Previously Presented) The apparatus of claim 36 wherein the safety device comprises a dead-man's switch.

38. (Previously Presented) The apparatus of claim 20 further comprising at least one additional gyrostator, the controller selectively and independently controlling the gyrostats to provide a sensation to the user playing the electronic game.

39. (Previously Presented) The apparatus of claim 20 further comprising means for selectively hindering toppling of the gyrostator as the user is applying input to the input device.

40. (Previously Presented) The apparatus of claim 39 wherein the means comprises a mechanical linkage having a predetermined degree of freedom.

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41. (Previously Presented) The apparatus of claim 20 wherein the controller selectively topples the gyrostator to provide tactile feedback to the user playing the electronic game.

42. (Previously Presented) The apparatus of claim 20 wherein the controller selectively topples the gyrostator to provide torque to the user playing the electronic game.

43. (Previously Presented) The apparatus of claim 20 wherein the controller selectively topples the gyrostator to provide sensations to the user that correspond to action in the electronic game.

44. (Previously Presented) The apparatus of claim 20 wherein the controller selectively topples the gyrostator to provide feedback to the user that motivates the user to conserve rotational energy of the gyroscopic element.

45. (Previously Presented) The apparatus of claim 20 wherein the controller selectively topples the gyrostator to provide feedback to the user that urges the user to move the input device in a predetermined direction.

46. (Previously Presented) The apparatus of claim 20 wherein the controller selectively topples the gyrostator to provide feedback to the user that urges the user to move the input device in a direction toward a target area.

47. (Previously Presented) The apparatus of claim 20 wherein the controller selectively topples the gyrostator to provide a sensation to the user that resists a movement by the user of the input device.

48. (Previously Presented) The apparatus of claim 20 wherein the controller selectively topples the gyrostator to provide feedback to the user that urges the user to remain within a predetermined field of play.

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49. (Previously Presented) A network-based electronic game system comprising:

- (a) a plurality of electronic game components, each comprising:
  - (i) an input device that receives input from a user playing the electronic game;
  - (ii) an output device having a gyrostator with at least one degree of freedom on at least one toppling axis; and
  - (iii) a controller for controlling action in the electronic game based at least in part on input received from the user and for selectively toppling the gyrostator to provide a sensation to the user playing the electronic game; and
- (b) a network for enabling communication among the plurality of electronic game components;

50. (Previously Presented) An electronic game apparatus comprising:  
a display for displaying information indicative of action in an electronic game;  
a gyrostator with at least one degree of freedom on at least one toppling axis; and  
a controller that selectively topples the gyrostator in accordance with action in the electronic game.

51. (Previously Presented) The apparatus of claim 50 wherein the controller is programmed to topple the gyrostator selectively to provide a sensation to the user playing the electronic game.

52. (Previously Presented) The apparatus of claim 50 wherein the controller is programmed to topple the gyrostator selectively to generate a physical effect in one or more components of the electronic game apparatus.

53. (Previously Presented) The apparatus of claim 50 wherein the gyrostator is embodied in an output device.

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54. (Previously Presented) The apparatus of claim 53 wherein the controller selectively topples the gyrostator to provide a sensation to a user playing the electronic game.

55. (Previously Presented) The apparatus of claim 50 further comprising an input device that receives input from a user playing the electronic game, and wherein the controller further controls action in the electronic game based at least in part on input received from the user.

56. (Previously Presented) The apparatus of claim 50 wherein the display is physically separate from at least one of the gyrostator and the controller.

57. (Previously Presented) The apparatus of claim 50 wherein two or more of the display, the gyroscopic element, and the controller are integrated into a common housing.

58. (Previously Presented) The apparatus of claim 57 wherein the common housing is configured to be handheld by the user of the electronic game.

59. (Previously Presented) The apparatus of claim 50 wherein the controller is programmable and wherein the apparatus further comprises software executed by the controller for controlling one or more of (i) action in the electronic game, (ii) receiving input from a user, and (iii) selectively toppling the gyrostator.

60. (Previously Presented) The apparatus of claim 50 further comprising at least one additional gyroscopic element, the controller selectively and independently controlling the gyroscopic elements in accordance with action in the electronic game.

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61. (Previously Presented) The apparatus of claim 50 wherein the controller selectively topples the gyrostator to provide tactile feedback to a user playing the electronic game.

62. (Previously Presented) The apparatus of claim 50 wherein the controller selectively topples the gyrostator to provide torque to a user playing the electronic game.

63. (Previously Presented) The apparatus of claim 50 wherein the controller selectively topples the gyrostator to provide feedback to a user that motivates the user to conserve rotational energy of the gyrostator.

64. (Previously Presented) The apparatus of claim 50 further comprising an input device and wherein the controller selectively topples the gyrostator to provide feedback that urges the user to move the input device in a predetermined direction.

65. (Previously Presented) The apparatus of claim 50 further comprising an input device and wherein the controller selectively topples the gyrostator to provide feedback that urges a user to move the input device in a direction toward a target area.

66. (Previously Presented) The apparatus of claim 50 further comprising an input device and wherein the controller selectively topples the gyrostator to generate a physical effect that resists movement of the input device.

67. (Previously Presented) The apparatus of claim 50 wherein the controller selectively topples the gyrostator to provide feedback that urges a user to remain within a predetermined field of play.

68. (Previously Presented) The apparatus of claim 50 wherein the electronic game apparatus is configured to be hand-held by a user of the electronic game.

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69. (Previously Presented) The apparatus of claim 50 wherein the electronic game apparatus comprises an electronic sword game.

70. (Cancelled)

71. (Previously Presented) A method of controlling an electronic game, the method comprising selectively toppling a gyrostat on a toppling axis in at least one degree of freedom to provide a sensation to a player based on action in the electronic game, wherein selectively toppling the gyrostat to provide a sensation to the player comprises providing tactile feedback to the player based on action in the electronic game.

72. (Previously Presented) The method of claim 71 wherein selectively toppling the gyrostat to provide a sensation to the player comprises urging the player to move a game apparatus component in a predetermined direction.

73. (Previously Presented) The method of claim 72 wherein urging the player comprises providing the user with a sensation that encourages the user to move the game apparatus component in a direction toward a target area.

74. (Currently Amended) The method of claim ~~70~~ 71 wherein selectively toppling the gyrostat to provide a sensation to the player comprises resisting a movement by the player of a game apparatus component.

75. (Currently Amended) The method of claim ~~70~~ 71 wherein selectively toppling the gyrostat to provide a sensation to the player comprises providing an incentive to the player to remain within a predetermined field of play.

76. (Currently Amended) The method of claim ~~70~~ 71 wherein selectively toppling the gyrostat to provide a sensation to the player comprises providing an incentive to the player to conserve a rotational speed of the gyrostat.



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77. (Currently Amended) The method of claim ~~70~~ 71 further comprising receiving input from the player.

78. (Previously Presented) The method of claim 77 wherein selectively toppling the gyrostatt to provide a sensation to the player is based at least in part on input received from the user.

79. (Previously Presented) The method of claim 77 further comprising controlling the action of the electronic game based at least in part on the received input, the sensation provided to the player, or both.

80. (Cancelled)

81. (Previously Presented) A method of controlling an electronic game, the method comprising selectively toppling a gyrostatt in at least one degree of freedom on a toppling axis, wherein selectively toppling the gyrostatt to cause a physical effect based on action in the electronic game comprises imparting a force on one or more electronic game components.

82. (Previously Presented) The method of claim 81 wherein the physical effect is intended to be sensed by a human player of the electronic game.

83. (Cancelled)

84. (Previously Presented) An article comprising software embodied in a computer-readable medium and understandable by a programmable controller, for causing the programmable controller to control an electronic game having a gyrostatt with at least one degree of freedom on a toppling axis, the software comprising instructions to selectively topple the gyrostatt to cause a physical effect based on action in the electronic game, wherein the instructions to selectively topple the gyrostatt to cause a physical effect

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based on action in the electronic game comprise instructions for selectively toppling the gyrostat to provide a sensation to a user playing the electronic game.

85. (Previously Presented) The article of claim 84 wherein the instructions for selectively toppling the gyrostat to provide a sensation to the player comprise instructions that result in providing tactile feedback to the player based on action in the electronic game.

86. (Previously Presented) The article of claim 84 wherein the instructions for selectively toppling the gyrostat to provide a sensation to the player comprise instructions that result in urging the player to move a game apparatus component in a predetermined direction.

87. (Previously Presented) The article of claim 86 wherein the instructions that result in urging the player comprise instructions that result in providing the user with a sensation that encourages the user to move the game apparatus component in a direction toward a target area.

88. (Previously Presented) The article of claim 84 wherein the instructions for selectively toppling the gyrostat to provide a sensation to the player comprise instructions that result in resisting movement of a game apparatus component.

89. (Previously Presented) The article of claim 84 wherein the instructions for selectively toppling the gyrostat to provide a sensation to the player comprise instructions that result in providing an incentive to the player to remain within a predetermined field of play.

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90. (Previously Presented) The article of claim 84 wherein the instructions for selectively toppling the gyrostator to provide a sensation to the player comprise instructions that result in providing an incentive to the player to conserve a rotational speed of the gyrostator.

91. (Previously Presented) The article of claim 84 further comprising instructions for receiving input from the player.

92. (Previously Presented) The article of claim 91 wherein the instructions for selectively toppling the gyrostator to provide a sensation to the player include instructions that consider at least in part input received from the user.

93. (Previously Presented) The article of claim 91 further comprising instructions for controlling the action of the electronic game based at least in part on the received input, the sensation provided to the player, or both.

94. (Previously Presented) The apparatus of claim 20, wherein the gyrostator has two or more degrees of freedom on two or more toppling axes.

95. (Previously Presented) The system of claim 49, wherein the gyrostator has two or more degrees of freedom on two or more toppling axes.

96. (Previously Presented) The apparatus of claim 50, wherein the gyrostator has two or more degrees of freedom on two or more toppling axes.

97. (Previously Presented) The method of claim 71, wherein the method comprises selectively toppling the gyrostator on two or more toppling axes in two or more degrees of freedom.

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98. (Previously Presented) The method of claim 81, wherein the method comprises selectively toppling the gyrostat on two or more toppling axes in two or more degrees of freedom.

99. (Previously Presented) The article of claim 84, further comprising instructions to selectively topple the gyrostat in at least another degree of freedom on at least one other toppling axis.

100-106. (Cancelled)